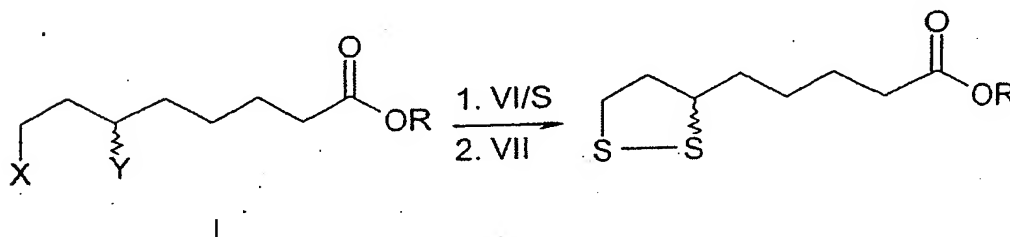


Patent claims

1. A method for producing racemic, R- or S-thioctic acid or mixtures thereof of the general formula III, characterized in that the solution of a sulfide of the general formula VI is metered into a mixture consisting of suspended sulfur and a solution of a racemic, (R)- or (S)-6,8-disubstituted octanoic acid, the corresponding alkali metal salts, alkyl esters and mixtures of the general formula I, in which X, Y, R and R' have the meanings stated below, and then, optionally during or after the hydrolysis of an ester II formed as an intermediate, a sulfite of the general formula VII is allowed to act.



X, Y = Cl, Br, OSO₂R'

II R = C₁₋₄-alkyl

R' = C₁₋₄-alkyl, aryl

III R = H

R = H, K, Na, C₁₋₄-alkyl

M₂S

M'₂SO₃

VI

VII

M = K, Na, NH₄

M' = K, Na, NH₄, Mg/2, Ca/2, Ba/2

2. The method as claimed in claim 1, characterized in that the molar ratio I : VI : sulfur : VII is 1 : 1 : 1 : 0.5 to 1 : 1.5 : 2 : 3, preferably 1 : 1.1 : 1.5 : 1 to 1 : 1.1 : 1.5 : 2.
3. The method as claimed in claim 1, characterized in that, with the use of the racemic, (R)- or (S)-6,8-disubstituted octanoic esters or mixtures

thereof of the general formula I ($R = C_{1-4}$ -alkyl), the initially formed racemic, R- or S-thioctic ester of the general formula II is hydrolyzed to give racemic, R- or S-thioctic acid or mixtures thereof of the general formula III.

4. The method as claimed in claim 1, characterized in that the sulfide of the general formula VI is metered in in the form of an aqueous or aqueous alcoholic solution.
5. The method as claimed in claim 1, characterized in that polar protic solvents, dipolar aprotic solvents, nonpolar solvents, mixtures of said solvents and mixtures with water are used as solvents for the compounds of the general formula I.
6. The method as claimed in claim 1, characterized in that the sulfite of the general formula VII is added as a solid salt or in the form of an aqueous solution.
7. A method for hydrolyzing crude racemic, R- or S-thioctic esters of the general formula II in the two-phase system to give pure racemic R- or S-thioctic acid or mixtures thereof in the presence of sulfites of the general formula VI.
8. A method for purifying racemic, R- or S-thioctic acid or mixtures thereof by the action of sulfites of the general formula VI, optionally in the presence of inert solvents, on the crude products dissolved in dilute alkali solutions.